CLAIM AMENDMENTS

Claim 43 (new). A method of preparing a compound of the formula

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8$$

wherein R₁ is selected from the group consisting of hydrogen, ethyl, methyl, n-butyl, and phenyl; R₂ is selected from the group consisting of hydrogen, ethyl, methyl, n-butyl, phenyl, and 3-methoxyphenyl; R₃ is selected from the group consisting of ethyl, methyl, and hydrogen; X₁ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; X₂ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; X₃ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; and X₄ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; said method comprising the steps of:

- a) reacting an aniline and a dialkyl acetylenedicarboxylate to form a reaction product, wherein the dialkyl is diethyl or dimethyl;
- b) cyclizing said reaction product with a solvent to form the alkyl ester of kynurenic acid;
- c) aminating said alkyl ester of kynurenic acid with an isocyanate to form a 4-aminated derivative thereof; and
- d) acylating said 4-aminated derivative first with triphosgene and then with a secondary amine, said secondary amine having the appropriate substitution groups to provide the desired R₁ and R₂ substituents on the product compound, to produce 4-urea-2-quinoline alkyl carboxylate.

Claim 44 (new). The method of claim 43 further comprising the step of:

e) hydrolyzing the 4-urea-2-quinoline alkyl carboxylate to remove the alkyl ester.

Claim 45 (new). The method of claim 43 wherein:

- (i) the solvent recited in step (b) is mineral oil;
- (ii) the isocyanate of step (c) is 4-toluenesulphonyl isocyanate refluxed with acetonitrile, so that the 4-aminated derivative is a tosylimino derivative; and
- (iii) step (d) further includes detosylating the reaction product of the tosylimino derivative, triphosgene, and the secondary amine.

Claim 46 (new). The method of claim 45 further comprising the step of:

e) hydrolyzing the 4-urea-2-quinoline alkyl carboxylate to remove the alkyl ester.

Claim 47 (new). A method of preparing a compound of the formula

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{4}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{9$$

wherein R_1 is phenyl; R_2 is selected from the group consisting of phenyl and 3-methoxyphenyl; R_3 is selected from the group consisting of ethyl, methyl, and hydrogen;

- X_1 is chlorine; X_2 is hydrogen; X_3 is chlorine, and X_4 is hydrogen; said method comprising the steps of:
- a) reacting 3, 5-dichloroaniline and a dialkyl acetylenedicarboxylate to form a reaction product wherein the dialkyl is dimethyl or diethyl;
- b) cyclizing said reaction product with a solvent to form the alkyl ester of 5, 7-dichlorokynurenic acid;
- c) aminating the alkyl ester of 5, 7-dichlorokynurenic acid with an isocyanate to form a 4-aminated derivate thereof; and
- d) acylating the 4-aminated derivative first with triphosgene and then with a diphenyl substituted secondary amine to produce 5, 7-dichloro-4-urea-2-quinoline alkyl carboxylate, wherein the urea is a diphenyl substituted urea.
- Claim 48 (new). The method of claim 47 further comprising the step of:
- e) hydrolyzing the 5, 7-dichloro-4-urea-2-quinoline alkyl carboxylate to remove the alkyl ester.
- Claim 49 (new). The method of claim 47 wherein:
 - (i) the solvent recited in step (b) is mineral oil;
- (ii) the isocyanate of step (c) is 4-toluenesulphonyl isocyanate refluxed with acetonitrile so that the 4-aminated derivative is a tosylimino derivative; and
- (iii) step (d) further includes detosylating the reaction product of the tosylimino derivative, triphosgene, and the secondary amine.

Claim 50 (new). The method of claim 49 further comprising the step of:

(e) hydrolyzing the 5, 7-dichloro-4-urea-2-quinoline alkyl carboxylate to remove the alkyl ester.

Claim 51 (new). A method of preparing a compound of the formula

$$X_{2}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{9$$

wherein R₁ is selected from the group consisting of hydrogen, ethyl, methyl, n-butyl, and phenyl; R₂ is selected from the group consisting of hydrogen, ethyl, methyl, n-butyl, phenyl, and 3-methoxyphenyl; R₃ is selected from the group consisting of ethyl, methyl, and hydrogen; X₁ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; X₂ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or

straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; X₃ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; and X₄ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; said method comprising the steps of:

- a) reacting an aniline and a dialkyl acetylenedicarboxylate to form a reaction product, wherein the dialkyl is diethyl or dimethyl;
- b) cyclizing said reaction product with a mineral oil to form the alkyl ester of kynurenic acid;
- c) aminating said alkyl ester of kynurenic acid with a toluene sulphonyl isocyanate to form a 4-tosylimino derivative thereof; and
- d) reacting said 4-tosylimino derivative first with triphosgene and then with a secondary amine, said secondary amine having the appropriate substitution groups to provide the desired R₁ and R₂ substituents on the product compound, to produce 4-urea-2-quinoline alkyl carboxylate.

Claim 52 (new). The method of claim 51 further comprising the step of:

e) hydrolyzing the 4-urea-2-quinoline alkyl carboxylate to form the 2-carboxylic acid thereof.

Claim 53 (new). A method of preparing a compound of the formula

$$X_{2}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{4}$$

$$X_{5}$$

$$X_{6}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{8}$$

$$X_{9}$$

$$X_{9}$$

$$X_{9}$$

$$X_{9}$$

$$X_{1}$$

$$X_{1}$$

$$X_{2}$$

$$X_{3}$$

$$X_{4}$$

$$X_{5}$$

$$X_{7}$$

$$X_{7}$$

$$X_{8}$$

$$X_{9}$$

$$X_{9$$

wherein R₁ is selected from the group consisting of hydrogen and any branched or straight-chained alkyl groups containing from 1 to 6 carbon atoms; R₂ is selected from the group consisting of hydrogen and any branched or straight-chained alkyl groups containing from 1 to 6 carbon atoms; R₃ is selected from the group consisting of ethyl, methyl, and hydrogen; X₁ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; X₂ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any

branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; X₃ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; and X₄ is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, and any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; said method comprising the steps of:

- a) reacting an aniline and a dialkyl acetylenedicarboxylate to form a reaction product, wherein the dialkyl is diethyl or dimethyl;
- b) cyclizing said reaction product with a solvent to form the alkyl ester of kynurenic acid;
- c) aminating said alkyl ester of kynurenic acid with an isocyanate to form a 4-aminated derivative thereof; and
- d) acylating said 4-aminated derivative first with triphosgene and then with a secondary amine, said secondary amine having the appropriate substitution groups to

provide the desired R₁ and R₂ substituents on the product compound, to produce 4-urea-2-quinoline alkyl carboxylate.

Claim 54 (new). The method of claim 53 further comprising the step of:

e) hydrolyzing the 4-urea-2-quinoline alkyl carboxylate to remove the alkyl ester.

Claim 55 (new). The method of claim 53 wherein:

- (i) the solvent recited in step (b) is mineral oil;
- (ii) the isocyanate of step (c) is 4-toluenesulphonyl isocyanate refluxed with acetonitrile, so that the 4-aminated derivative is a tosylimino derivative; and
- (iii) step (d) further includes detosylating the reaction product of the tosylimino derivative, triphosgene, and the secondary amine.

Claim 56 (new). The method of claim 55 further comprising the step of:

e) hydrolyzing the 4-urea-2-quinoline alkyl carboxylate to remove the alkyl ester.